

Sequence Listing.ST25.txt
SEQUENCE LISTING

<110> Novartis AG

<120> Use of fibroblast growth factor fragments

<130> 4-33264A

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<170> PatentIn version 3.1

<210> 1

<211> 251

<212> PRT

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20 25 30Gly Ser Ser Trp Gly Gly Leu Ile His Leu Tyr Thr Ala Thr Ala Arg
35 40 45Asn Ser Tyr His Leu Gln Ile His Lys Asn Gly His Val Asp Gly Ala
50 55 60Pro His Gln Thr Ile Tyr Ser Ala Leu Met Ile Arg Ser Glu Asp Ala
65 70 75 80Gly Phe Val Val Ile Thr Gly Val Met Ser Arg Arg Tyr Leu Cys Met
85 90 95Asp Phe Arg Gly Asn Ile Phe Gly Ser His Tyr Phe Asp Pro Glu Asn
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Ser Pro Gln Tyr His Phe Leu Val Ser Leu Gly Arg Ala Lys Arg Ala

Sequence Listing.ST25.txt

130

135

140

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Arg Asn Glu Ile Pro Leu Ile His Phe Asn Thr Pro Ile Pro Arg Arg
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His Thr Arg Ser Ala Glu Asp Asp Ser Glu Arg Asp Pro Leu Asn Val
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Leu Lys Pro Arg Ala Arg Met Thr Pro Ala Pro Ala Ser Cys Ser Gln
 195 200 205

Glu Leu Pro Ser Ala Glu Asp Asn Ser Pro Met Ala Ser Asp Pro Leu
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<212> PRT

<213> Homo sapiens

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Pro Glu Gly Cys Arg Pro Phe Ala Lys Phe Ile
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Sequence Listing.ST25.txt

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WO 2005/045044 A3



GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

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(88) **Date of publication of the international search report:**
10 November 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/012572

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/19

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE Geneseq 'Online! 28 March 2003 (2003-03-28), "Human fibroblast growth factor 23 polypeptide." XP002316719 retrieved from EBI accession no. GSN:ABP58110 Database accession no. ABP58110 the whole document	18-42
X	WO 02/088358 A (GENEPROT INC.) 7 November 2002 (2002-11-07) the whole document	18-42
X	WO 01/66596 A (CHIRON CORPORATION) 13 September 2001 (2001-09-13) the whole document	18-42
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
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T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

8 February 2005

Date of mailing of the international search report

08. 08. 2005

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/012572

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>JONSSON K.B. ET AL: "Fibroblast growth factor 23 in oncogenic osteomalacia and X-linked hypophosphatemia" THE NEW ENGLAND JOURNAL OF MEDICINE, vol. 348, no. 17, 24 April 2003 (2003-04-24), pages 1656-1663, XP008037462 the whole document</p>	18-42

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/012572

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

18-42

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 18-42

Uses of a polypeptide in the treatment of diseases associated with deregulated angiogenesis, wherein said polypeptide is FGF-23, and variants thereof.
Also encompassed are methods for the treatment of above diseases using said polypeptides, respectively pharmaceutical compositions comprising said polypeptides.

2. claims: 1-17

(Business) methods for identifying compounds as a candidate in pharmaceutical development

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/012572

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 02088358	A	07-11-2002	BR 0209144 A	08-06-2004
			CA 2443719 A1	07-11-2002
			CN 1602355 A	30-03-2005
			WO 02088358 A2	07-11-2002
			EP 1381683 A2	21-01-2004
			JP 2004527253 T	09-09-2004
			US 2004171825 A1	02-09-2004
WO 0166596	A	13-09-2001	AU 4553501 A	17-09-2001
			AU 4912501 A	17-09-2001
			EP 1261638 A2	04-12-2002
			JP 2003531583 T	28-10-2003
			WO 0166595 A2	13-09-2001
			WO 0166596 A2	13-09-2001
			US 2002082205 A1	27-06-2002
			US 2003105302 A1	05-06-2003